

Laboratory Devices



PLP

behrotest® hose pumps for laboratories

Compact laboratory hose pumps with continually adjustable flow rate, pump motor with two squeezing rollers and four guide rolls. Easy changing of hose without tools or other aids. AC motors 220V~, 50 Hz.

Model	Flow Rate l/h	230 V~ Art.-No.	115 V~ Art.-No.
PLP 33	0,4 - 2	58 48 70102	58 48 701025
PLP 66	1,0 - 4	58 48 70104	58 48 701045
PLP 330	4,0 - 24	58 48 70120	58 48 701205
PLP 1000	15 - 60	58 48 70160	58 48 701605



KP 1 (Accessories are not included in the scope of supply.)

behrotest® heating elements with metal protective grill

Controllable heating elements for general tasks in the laboratory. A metal grill protects users from accidental contact with the hot heating element.

Model	Article description	230 V~ Art.-No.	115 V~ Art.-No.
KP 1	Heating element with metal protective grill, controllable, Ø 90 mm, 500 W, 230 V	80 48 00504	80 48 005045
KP 2	Heating element with metal protective grill, controllable, Ø 145 mm, 1100 W, 230 V	80 48 00505	80 48 005055

Technical data

	KP 1	KP 2
Weight	approx. 1,2 kg	approx. 1,3 kg



HB 4

behrotest® serial heating units

Serial heating units with individually controllable heating points. Brackets for support rods available optionally.

Model	Article description	Art.-No.
HB 4	Serial heating element, 4 individually controllable heating points, Ø 94 mm	80 48 00506
HB 6	Serial heating element, 6 individually controllable heating points, Ø 94 mm	80 48 00507
HBS 4	Brackets for HB 4 incl. 4 support rods	80 48 00508
HBS 6	Brackets for HB 6 incl. 6 support rods	80 48 00509

Technical data

	HB 4	HB 6
Dimensions in cm (W x H x D)	approx. 53 x 74 x 32	approx. 76 x 74 x 32
Weight of total system	approx. 15,1 kg	approx. 19,8 kg
Rated voltage	230 V~, 50/60 Hz	
Nominal power	1440 W	2160 W

The behr IRF 10 programmable infrared furnace

The behr IRF 10 programmable infrared furnace – the optimum solution for many tasks in the laboratory, e.g.:

- Thermal oxidative or reductive digestion of different sample materials for sample quantities of 10 mg to 1 g (depending on the sample material)
- Thermoanalysis
- Selective fractionated desorption of organic compounds of substrates
- Pyrolysis
- Drying
- Selective evaporation of sample ingredients and sample materials

The flue gas can be transferred in an absorption liquid for further analysis (e.g. ion chromatography, coulometry). In addition, transfer to the online analysis (e.g. infrared spectroscopy) is possible. The behr IRF 10 heats with radiant heat.

There is an infrared heater in the focal line of a cylinder with elliptical cross-section. Its radiation is reflected on the gold-plated interior surface of the cylinder and focussed in the second focal line. There is a silica combustion tube as substrate for the sample material.

The user can transfer the sample with a sample boat made of silica glass, ceramics or another inert material into the silica tube.

The temperature is measured by a Ni-CrNi thermocouple. It is located on the outside wall of the silica combustion tube in the interior of the kiln cylinder.

- Temperature range up to 1150 °C
- Extremely short heating period (e.g. from room temperature to 1000 °C in 10 sec)
- Up to 5 ramps and 5 heating rates can be programmed optionally. The program controls the individual analysis phases exactly and in a reproducible manner, in the meantime the sample boat remains in the same place
- Cooling with heat pipes – no coolant required
- Quick cooling down with the heat pipe technique and opening of the kiln
- Combustion chamber which can be viewed by the user: The user can push back the upper cylindrical shell (furnace lid) on rollers
- The use of silica combustion tubes with different dimensions allows adaptation to different applications, sample materials and sample quantities
- Two flow meters to connect 2 type of gas, e.g. oxygen and an inert gas
- RS232 serial interface
- Control via PC possible



IRF 10

Model	Art.-No.
IRF 10, programmable infrared furnace, with silica tube	
For silica tubes with external diameter of 18 - 20 mm	80 48 90017
For silica tubes with external diameter of 22 - 24 mm	80 48 90041
For silica tubes with external diameter of 26 - 28 mm	80 48 90042

Technical data

Dimension in cm (B x H x T)	approx. 36 x 44 x 42
Rated voltage	230 VAC/ 115 VAC
Radiation output	max. 1,5 kW
IR furnace temperature along the focal line	max. 1150 °C
Tube diameter, external	18 mm to 28 mm
IR furnace length (heated length)	200 mm
Communication connection	RS 232 (D-Sub, 9-pole, socket)

We can provide you with the suitable silica combustion tube for your application.

We would be pleased to give you advice!